

N<sup>o</sup> 20,701



[A.D. 1894

*Date of Application, 29th Oct., 1894*

*Complete Specification Left, 29th Aug., 1895—Accepted, 29th Oct., 1895*

PROVISIONAL SPECIFICATION.

An Improved Sanitary Towel, Napkin, Surgical Bandage, or similar Appliance, and the Manufacture of Textile Fabric for such purpose.

I, DUGALD SCOTT of 12 York Street, Manchester, in the County of Lancashire, Manufacturer, do hereby declare the nature of this invention to be as follows :—

This invention relates to an improved sanitary towel or napkin (especially  
5 suitable for the use of women) applicable also for surgical or any other uses or purposes for which same may be adapted and the manufacture of a special fabric for this purpose.

My present invention is as follows :—

On an ordinary or any suitable loom I manufacture a fabric (advantageously of  
10 cotton) of an alternating character *viz.*: parts are woven as a weft pile fabric (or it may be a warp pile) and alternating parts woven as non-pile fabric, or part which is not adapted to be cut or have a velvet pile raised thereon for instance as a plain *i.e.* tabby cloth, sateen, drill, *etc., etc.*, as desired any suitable means being employed to thus weave a fabric of such alternating character and this change in  
15 the weaving can be effected automatically if desired or by the operative in charge of the loom throwing the requisite mechanism in or out of gear.

Thus I alternately weave a pile surface advantageously a fast pile (to be afterwards cut or raised) and a plain cloth (or part which is not adapted to be cut or have the pile raised thereon) in succession in one continuous piece of fabric and of  
20 any desired width or number of widths in which latter case a longitudinal stripe or stripes may be specially woven to form fast selvages when such length of fabric is divided up into the separated towels *etc.* to be formed from same or narrow longitudinal stripes may be left uncut when cutting the pile to thereby form fast selvages to the towel *etc.*

25 The pile on these detached surfaces is cut cropped brushed and singed and the fabric may be thoroughly washed scoured and (if desired) bleached or otherwise suitably treated or finished as desired.

The relative extent of the cut pile surface and the cloth or uncut part may vary as desired but for ordinary ladies diapers say of a width of 11 or 12 inches with a  
30 total length of say 3 feet—the cut pile surface which is of the full width need only extend about 12 or 15 inches in length about the middle of the diaper (and may if desired be “flaneletted” on the back or may have a pile surface on the back as well as on the face) while the two ends being plain cloth *etc.* as before described are therefore less bulky than the central portion and can be easily  
35 fastened in use.

If desired after the length of fabric has been cut up into the separate towels these bandages may be made up or formed with a filling or padding of wool *etc.* in the central portion thereof.

For surgical or other purposes these bandages may be treated with an antiseptic  
40 or otherwise chemically impregnated or medicated.

The relative amount of pile surface to the rest of each towel may be varied as well as the total length of the whole bandage or appliance.

No dyeing of the cotton is required either before or after weaving.

[Price 8d.]



*Scott's Improved Sanitary Towel, Napkin, Surgical Bandage, or similar Appliance.*

Instead of weaving alternately as a pile fabric and then as a plain cloth each of the full width of the fabric as above described I may weave in the following manner:—

I arrange the healds to operate so that only the central part of the fabric will be woven as a pile and the two longitudinal edges or side parts as a plain cloth 5  
sateen *etc.* of any desired width—the healds controlling and operating the warp ends of these plain cloth parts being intermittently inoperative during any suitable number of traverses of the shuttle which thus weaves alone in the pile part during which time no weft goes into the plain part and then the weft goes into both cloth 10  
part and pile and so on for instance in weaving with a pile on one side only the cloth healds remain idle while three picks are put into the pile part and then the healds are moved and the weft is woven into pile and the cloth part on one side, then completely across the whole width of the fabric, then the weft is wove into the cloth part on one side only and pile part and now misses the opposite cloth 15  
part, and next weaves three pile picks only as before and so on; while for weaving a pile on both sides the healds are arranged to permit the increased number of pile picks required to form the second pile surface as will be easily understood.

The pile on this fabric is cut and the fabric treated or finished in any suitable manner as before described and the material is then cut up crosswise of the 20  
desired width suitable for sanitary towels *etc.* and hemmed along such cut edges or if desired a plain cloth part may be woven crosswise at the desired points to thus form fast selvages and avoid hemming.

In place of weaving as above with a single thread I may use two threads in one shuttle after the manner described in my application for Patent No. 20696 of 1894 25  
*i.e.* applied to this particular kind of weave.

Dated this 29th day of October 1894.

TONGUE & BIRKBECK,  
34, Southampton Buildings, Chancery Lane, London, W.C.,  
Agents for the Applicant.

### COMPLETE SPECIFICATION.

**An Improved Sanitary Towel, Napkin, Surgical Bandage, or similar Appliance, and the Manufacture of Textile Fabric for such purpose.**

I, DUGALD SCOTT of 12 York Street, Manchester, in the County of Lan- 35  
cashire, Merchant, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention relates to an improved sanitary towel or napkin (especially suitable for the use of women) applicable also for surgical or any other uses or 40  
purposes for which same may be adapted and the manufacture of a special fabric for this purpose.

My present invention is as follows:—

On an ordinary or any suitable loom I manufacture a fabric (advantageously of cotton) of an alternating character *viz.*: parts are woven as a weft pile fabric (or 45  
it may be a warp pile) and alternating parts woven as non-pile fabric or part which is not adapted to be cut or have a velvet pile raised thereon for instance as a plain *i.e.* tabby cloth, sateen, drill, *etc.*, *etc.*, as desired—any suitable means being employed to thus weave a fabric of such alternating character.

Thus I alternately weave a pile surface advantageously a fast pile (to be after- 50  
wards cut or raised) and a plain cloth (or part which is not adapted to be cut or



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have the pile raised thereon) in succession in one continuous piece of fabric and of any desired width or number of widths in which latter case a longitudinal stripe or stripes may be woven to form fast selvages when such length of fabric is divided up into the separated towels *etc.* to be formed from same or narrow longitudinal stripes may be left uncut when cutting the pile to thereby form fast selvages to the towel *etc.*

The pile on these detached surfaces is cut cropped brushed and singed and the fabric may be thoroughly washed scoured and (if desired) bleached or otherwise suitably treated or finished as desired.

10 The relative extent of the cut pile surface and the cloth or uncut part may vary as desired but for ordinary ladies diapers say of a width of 11 or 12 inches with a total length of say 3 feet—the cut pile surface which is of the full width need only extend about 12 or 15 inches in length about the middle of the diaper (and may if desired be “flaneletted” on the back or may have a pile surface on the back as well as on the face) while the two ends being plain cloth *etc.* as before described are therefore less bulky than the central portion and can be easily fastened in use.

If desired after the length of fabric has been cut up into the separate towels these bandages may be made up or formed with a filling or padding of wool *etc.* in the central portion thereof.

For surgical or other purposes these bandages may be treated with an antiseptic or otherwise chemically impregnated or medicated.

The relative amount of pile surface to the rest of each towel may be varied as well as the total length of the whole bandage or appliance.

25 No dyeing of the cotton is required either before or after weaving.

Instead of weaving alternately as a pile fabric and then as a plain cloth each of the full width of the fabric as above described I may weave in the manner hereinafter described with reference to Fig. 2.

30 And in order that my present invention may be easily understood and readily carried into practice I will proceed to further describe same with reference to the drawings hereunto annexed.

## DESCRIPTION OF THE DRAWINGS.

Fig. 1 shows a piece of fabric specially manufactured according to my present invention *viz.* : woven according to the first method hereinbefore described.

35 Fig. 2 shows a piece of fabric woven according to the second method above described.

Fig. 3 shows (on an enlarged scale) a sanitary towel having the pile part thereof cut or “raised” and such towel cut off from the length of fabric (*i.e.* cut off either from the length of fabric shown in Fig. 1 or from that shown in Fig. 2) and finished in readiness for use.

40 In Fig. 1 the whole width of the fabric *a* to *b* is woven as a non-pile fabric for instance as a plain cotton cloth or sateen *Y* from the line *A* to *B* then next woven as a pile fabric *X* or part adapted to have a velvet pile cut or raised thereon from *B* to *C*—this change in the weaving being effected in any well-known or suitable manner for instance by the operative in charge of the loom throwing the requisite mechanism in or out of gear or same may be effected mechanically as is well understood by anyone skilled in the art of weaving cotton pile fabric and therefore need not be further described here.

45 Then again a plain or non-pile fabric *Z* is woven from the line *C* to the line *D* and this is continued from the line *D* to line *E* and then the weave is changed again to produce a pile fabric *X* from line *E* to line *F* and so on alternately throughout the length of the fabric.

50 The fabric is cut up along the dotted line so as thus to produce a number of sanitary towels each of a length *A* to *D* and in the case illustrated four of such in 55 the total width of the material woven.



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It will of course be obvious that other widths of material or other number than four towels in the width can be thus woven as desired and furthermore a plain or non-pile part can be woven along the dotted lines (*i.e.* where the material is to be divided) through the pile part X to thus act as a selvedge and thereby avoid hemming and similarly along the dotted cross lines or same may be hemmed or otherwise bound as desired to thus produce a sanitary towel X Y Z of the character illustrated in Fig. 3.

Referring now to Fig. 2:—

The width of material from edge G to edge J is the total width as same is woven on the loom, part thereof *viz.*: from the edge G to the line H being woven as a plain cloth or non-pile fabric Y then from the line H to line I as a pile fabric X and again as a plain or non-pile fabric Z from the line I to the other edge J as follows:—

I arrange the healds to operate so that only the central part X of the fabric will be woven as a pile and the two longitudinal edges or side parts Y and Z as a plain cloth sateen *etc.* of any desired width—the healds controlling and operating the warp ends of these plain cloth parts Y and Z being intermittently inoperative during any suitable number of traverses of the shuttle which thus weaves alone in the pile part X (during which time no weft goes into the plain part Y or Z) and then the weft goes into both cloth parts Y and Z and pile part X and so on for instance in weaving with a pile on one side only the plain cloth healds remain idle while three picks are put into the pile part X and then the healds are moved and the weft is woven into pile X and the plain cloth part Y on one side then completely across the whole width of the fabric X Y Z then the weft is woven into the plain cloth part Z on one side only and pile part X and now misses the opposite cloth part Y and next weaves three pile picks only in the part X as before and so on; while for weaving a pile on both sides the healds are arranged to permit the increased number of pile picks required to form the second pile surface as will be easily understood by anyone skilled in the art of weaving and need not therefore be further described here.

The pile X on this fabric is cut and the fabric treated or finished in any suitable manner as before described and the material is then cut up crosswise (as shown by the dotted lines *c—d*) of the desired width suitable for sanitary towels *etc.* and hemmed along such cut edges or if desired a plain cloth part may be woven crosswise at the desired points (for instance on the dotted lines *c—d*) to thus act as selvedges and avoid hemming.

In this manner therefore a sanitary towel X Y Z is produced of the character shown in Fig. 3, this method of weaving having the advantage that the pile surface X being continuous throughout the length of the fabric consequently the pile is cut or raised without the interruptions in its length which occur in the first described method.

In place of weaving as above with a single thread I may use two threads in one shuttle after the manner described in my application for Patent No. 20,696 of 1894 *i.e.* applied to this particular kind of weave.

Any suitable loop or loops or other suitable means may be provided as desired on this towel for fastening or securing same in position on the wearer.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed I declare that what I claim is:—

1. The improved manufacture of textile fabric in the production of sanitary towels napkins surgical bandages or similar appliances by weaving such fabric partly as a pile and partly as a non-pile fabric to thus provide a non-pile part at each end of the pile part of each such article.

2. The improved manufacture of textile fabric in the production of sanitary towels napkins surgical bandages or similar appliances by weaving such fabric partly as a pile and partly as a non-pile fabric to thus provide a non-pile part at



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*Scott's Improved Sanitary Towel, Napkin, Surgical Bandage, or similar Appliance.*

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each end of the pile part of each such article substantially in the manner and for the purposes hereinbefore described.

3. Weaving alternately first as a pile fabric for the whole width of the material and then as a plain cloth or non-pile fabric for the whole width of said material  
5 substantially in the manner and for the purposes hereinbefore described with reference to Fig. 1 of the drawings hereunto annexed.

4. Weaving the central part of a fabric as a pile part throughout the whole length of said fabric and simultaneously weaving a plain cloth or non-pile part on each side thereof substantially in the manner and for the purposes hereinbefore  
10 described with reference to Fig. 2 of the drawings hereunto annexed.

5. A sanitary towel napkin surgical bandage or similar appliance having the middle portion as a pile fabric and the two ends respectively as a non-pile fabric.

6. A sanitary towel napkin surgical bandage or similar appliance having the middle portion as a pile fabric and the two ends respectively as a non-pile fabric  
15 substantially in the manner and for the purposes hereinbefore described.

7. The improved sanitary towel napkin surgical bandage or similar appliance substantially as and for the purposes hereinbefore described.

Dated this 29th day of August 1895.

TONGUE & BIRKBECK,

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[This Drawing is a reproduction of the Original on a reduced scale.]

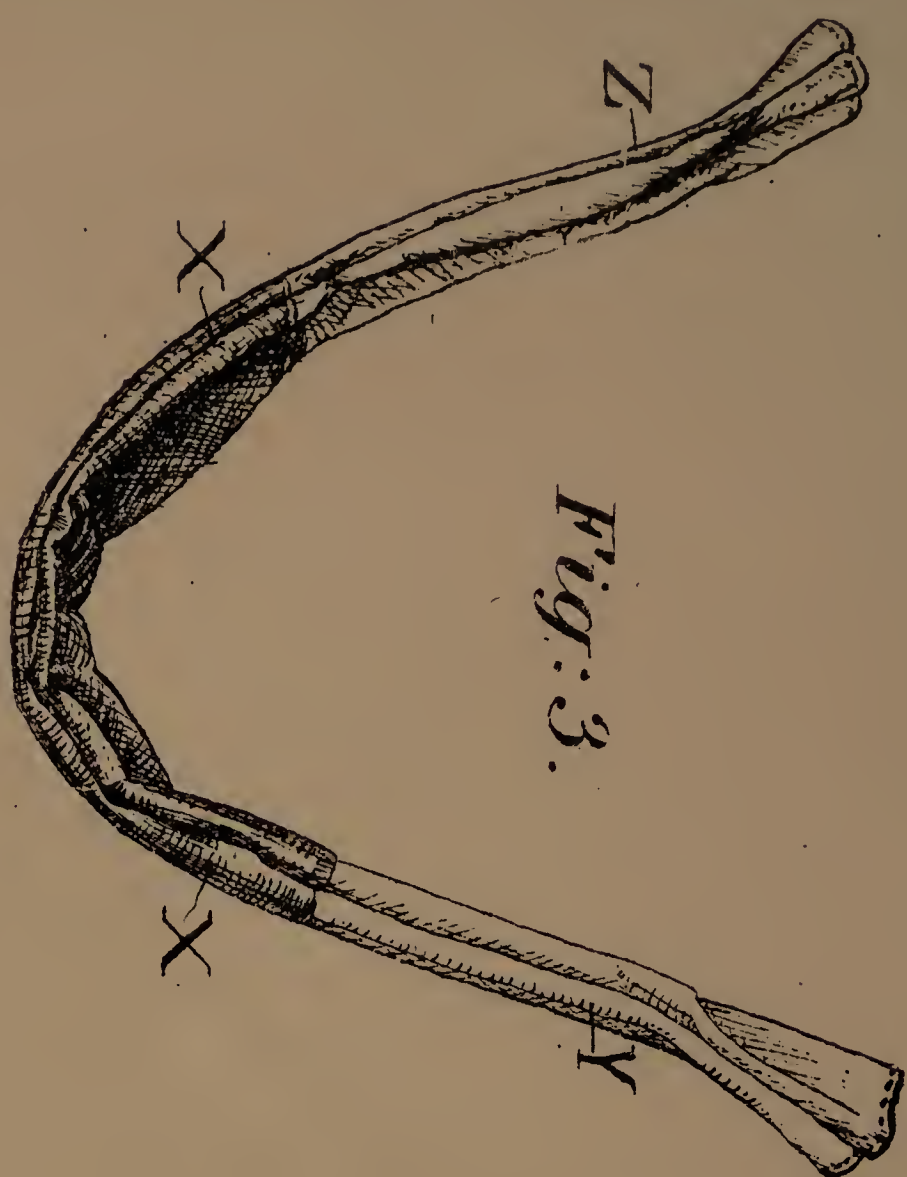


Fig. 2.

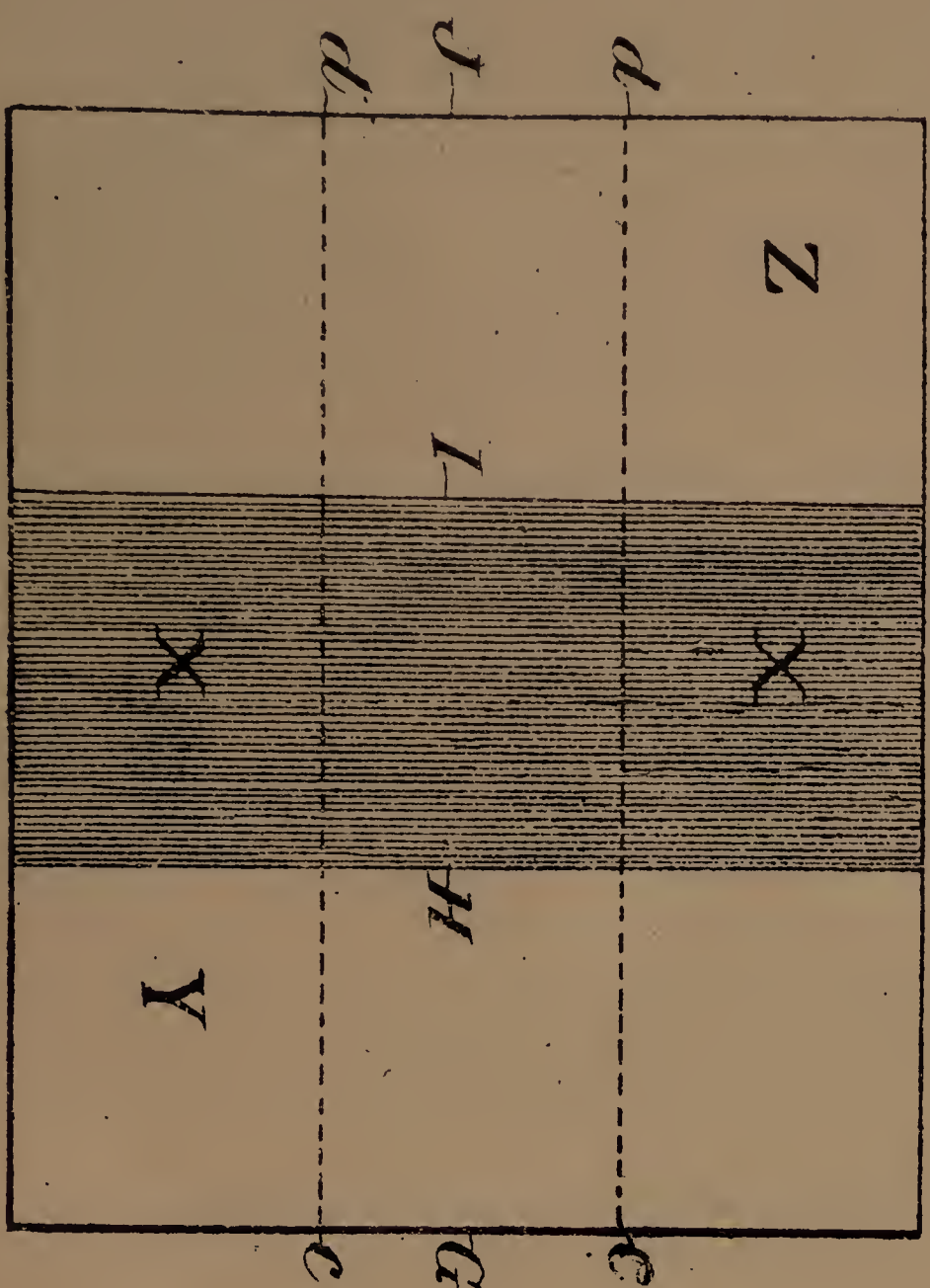


Fig. 1.

